At a news conference on Apr. 10, INL Commercialization Manager John Snyder, right, describes INL's efforts at producing medical isotopes for cancer treatment and the flexibility that the Advanced Test Reactor will have after the Shuttle Irradiation system is installed later this year. ISU engineering professor Brian Williams, left, followed with a more detailed discussion of the fabrication and testing of the Shuttle components during a 30-minute news conference at the ISU Thermal Fluids Laboratory in Idaho Falls.

INL and ISU collaborate on installing ATR Shuttle

By Keith Arterburn

Idaho National Laboratory and Idaho State University officials held a news conference on Apr. 10 to detail for media their collaboration on installing the Shuttle Irradiation System in INL's Advanced Test Reactor.

ISU engineering professor Brian Williams and INL Commercialization Manager John Snyder delivered an overview on the collaboration to local TV and print media during a 30-minute news conference at the ISU Thermal Fluids Laboratory in Idaho Falls.

Snyder outlined the need for greater quantities of nuclear medical isotopes for cancer treatment, while Williams emphasized the strong partnership with INL and the keen focus that ISU has for medical research.

At the end of the conference, Williams introduced his team of students from the engineering department and the team leader, Danielle Perez, who made brief remarks on the educational benefit associated with the project.

The world's premier test reactor, the ATR is two years ahead of schedule for the installation of a Shuttle Irradiation System, which will allow for quicker insertion and removal of materials used to produce medical and industrial isotopes.

Under Williams' supervision, the team of Mechanical and Nuclear Engineering students will conduct this component testing. In addition to Perez, the team also includes Chris Maughan, Logan Tew, and Eric Williams.

On Apr. 10, ISU engineering professor Brian Williams, left, details to media the fabrication and testing project that supports the installation of the Shuttle Irradiation system for INL's Advanced Test Reactor. Williams was joined by INL Commercialization Manager John Snyder, right, who described INL's efforts at producing medical isotopes for cancer treatment and the flexibility the Shuttle offers ATR's production of cancer treating isotopes. Williams four-student engineering team also attended the news conference and spoke about the project offering 'real world' experience.

ISU student and engineering team leader Danielle Perez, left, outlines the educational and career benefits of working with ISU professor Brian Williams, second from left, on fabricating and testing Shuttle Irradiation system components for INL's Advanced Test Reactor. Other student team members include Logan Tew, second from right, and Chris Maughan, right. A fourth student team member is Eric Williams (not pictured). The Shuttle will add flexibility for the ATR to produce needed

"Fabrication and installation of ATR's Shuttle Irradiation System, called the Shuttle, are underway after extensive planning," said Art Clark, INL Deputy Laboratory Director. "We are pleased that ISU will assist in the testing of key components and we plan for installation to be complete by September 30 of this year."

"The Shuttle makes it possible to produce commercial quantities of medical isotopes in ATR," said Frances Marshall, INL manager of Irradiation Test Programs for ATR.

On December 29, 2006, the state of Idaho agreed to loan Battelle Energy Alliance, the contractor that operates the U.S. Department of Energy's Idaho National Laboratory, $2 million to allow BEA to install a shuttle system for ATR in 2008, two years ahead of schedule.

As part of its contract, BEA committed to installing the Shuttle by 2010 during a four-year period. Projected cost for design and installation in 2004 was $6 million. BEA accepted Idaho's challenge of completing installation two years ahead of schedule, advancing the completion date to 2008. Current projections are on schedule for the 2008 installation.

"The ATR Shuttle operates much like the shuttle system at a bank's drive-up station, except that the capsules are smaller than a roll of pennies," said Gerry McCormick, INL project manager for the Shuttle design and installation. "Sixteen of them are loaded into the Shuttle

medical isotopes for cancer treatments in the U.S.

send/receive station under eight feet of water. They are water transferred along stainless steel transfer pipes over 100 feet long, to the reactor core. We are very grateful to have ISU as part of the project team supporting the Shuttle hardware demonstration."

ISU President Arthur Vailas is pleased with the opportunity to partner with INL. "ISU is excited about participating in a project that aids cancer research and treatment of patients," Vailas said. "This important effort underscores the strength of public-private partnerships that contribute to better health."

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